This script is meant to verify the salary of a potential employee in his/ her previous company. We will use support vector regression model to learn from the position salary dataset of the potential employee's previous company and predict whether the potential employee earned 150k salary as a regional manager

1. import the libraries, dataset and change the working directory

```r
library(caTools)
library(e1071)

dataset = read.csv('Position_Salaries.csv')
dataset = dataset[2:3]
```

2. data pre-processing

view the dataset

```r
head(dataset)
```

```
##   Level Salary
## 1     1  45000
## 2     2  50000
## 3     3  60000
## 4     4  80000
## 5     5 110000
## 6     6 150000
```

we arent splitting the dataset into training and testing set because we want the model we create to learn from all the data and to find any (if any) correlation between the 'Position' and the 'Salary' we apply the feature scaling in this dataset to the dependent variable ('Salary'); because the values of the dependent variable ('Salary') is way greater than the independent variable ('Position'). This can result in the 'Salary' variable affecting the model and hence 'Position' variable might get neglected

3. Training the SVR model on the entire dataset

```r
regressor = svm(formula = Salary ~ .,
                data = dataset,
                type = 'eps-regression',
                kernel = 'radial')
```

4. predicting a new result

```r
y_pred = predict(regressor, data.frame(Level = 6.5))
```

5. visualizing the SVR results

```r
library(ggplot2)
ggplot() +
        geom_point(aes(x = dataset$Level, y = dataset$Salary), colour = 'red') +
        geom_line(aes(x = dataset$Level, y = predict(regressor, newdata = dataset)),
                  colour = 'blue') +
        ggtitle('Support Vector Regression') +
        xlab('Level') + ylab('Salary')
```

Support Vector Regression